

BOSTON, MASSACHUSETTS 02109-1784 TELEPHONE (617) 227-7400 FAX (617) 742-4214 www.lahive.com

JOHN A. LAHIVE, JR. (1928-1997) THOMAS V. SMURZYNSKI GIULIO A. DeCONTI, JR. ELIZABETH A. HANLEY AMY BAKER MANDRAGOURAS ANTHONY A. LAURENTANO KEVIN J. CANNING JANE E. REMILLARD DeANN FORAN SMITH DEBRA J. MILASINCIC, Ph.D. MEGAN E. WILLIAMS, Ph.D. WILLIAM A. SCOFIELD, JR. SIBLEY P. REPPERT JOHN D. LANZA DAVID R. BURNS JOHN S. CURRAN SEAN D. DETWEILER HATHAWAY P. RUSSELL MARIA LACCOTRIPE ZACHARAKIS, Ph.D.

DANIELLE L. HERRITT **EUIHOON LEE **** MANEESH GULATI CYNTHIA M. SOROOS PETER W. DINI, Ph.D. MICHAEL J. BASTIAN, Ph.D. CHRISTOPHER J. McKENNA VINCENT P. LOCCISANO JAMES M. McKENZIE CYNTHIA M. GILBERT LEIGH J. MARTINSON

SENIOR COUNSEL JAMES E. COCKFIELD

OF COUNSEL JEREMIAH LYNCH JEANNE M. DIGIORGIO CYNTHIA L, KANIK, Ph.D. PATENT AGENTS JONATHAN M. SPARKS, Ph.D. CRISTIN E. HOWLEY, Ph.D. JILL ANN MELLO, Ph.D. CHRISTOPHER E. DRABIK JAMES H. VELEMA JACOB G. WEINTRAUB

TECHNICAL SPECIALISTS CATHERINE M. BISHOP DEBORAH L. NAGLE, Ph.D. ANNE JACQUELINE WIZEMAN, Ph.D. BRIAN C. TRINQUE, Ph.D. CHRISTOPHER R. COWLES, Ph.D. W. ELANA WANG MEAGHAN L. RICHMOND, Ph.D.

- Admitted in TX only
- ** Admitted in CT only

April 15, 2005

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Re:

U.S. Patent Application No.: 10/031,841

For: HUMAN HOMOLOGUE OF BOVINE NEUROENDOCRINE SECRETORY PROTEIN. NESP55. POLYNUCLEOTIDES AND USES THEREOF LINKED

WITH OBESITY

Inventors: Douglas C. Fraser, et al.

Filed: January 22, 2002

Our Ref. No.: KNI-004CPUS

Dear Sir:

I enclose herewith for filing in the above-identified application the following:

- 1. Information Disclosure Statement;
- 2. PTO Form SB/08:
- 3. Copies of selected references cited in PTO Form SB/08 (13);
- A Return Postcard.

No additional costs are believed to be due in connection with the filing of this Information Disclosure Statement. However, please charge any necessary fees in connection with the enclosed statement to our Deposit Order Account No. 12-0080. For this purpose, a duplicate of this sheet is attached.

I hereby certify that this correspondence is deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on:

Respectfully submitted,

LAHIVE & COCKFIELD, LLP

Giulio A. DeConti, Jr., Esq.

Registration No. 31,503 Agent for Applicants



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Douglas C. Fraser, et al.

Serial No.: 10/031,841

Filed: January 22, 2002

For: HUMAN HOMOLOGUE OF BOVINE NEUROENDOCRINE SECRETORY PROTEIN, NESP55, POLYNUCLEOTIDES AND USES THEREOF LINKED WITH OBESITY

Attorney Docket No.: KNI-004CPUS

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

Certificate of First Class Mailing (37 CFR §1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on the date set forth-below.

4-15-05

Date of Signature and of Mail Deposit

Giulio A. DeConti, Jr., Esq

Registration No. 31,503

Agent for Applicants

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicants and their Attorney are aware of the following publications and information, listed on the attached PTO Form SB/08, and in accordance with 37 CFR §1.97 hereby submit these publications for the Examiner's consideration. A copy of each cited publication is enclosed. The copy of the cited U.S. patent (Reference ID No. A1) is not enclosed with this statement. Copies of non-patent literature (Reference ID Nos. A2-B4) are enclosed in accordance with 37 CFR 1.98.

Serial Number: 10/031,841 Page -2- Filing Date: January 22, 2002

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, Applicant/s understand/s that the Examiner will make an independent evaluation of the cited publications.

Under 37 CFR § 1.97(b)(3), no additional costs are believed to be due in connection with the filing of this disclosure. If, however, a first Office Action on the merits issues in this application bearing a mailing date prior to the date of this Information Disclosure Statement, please charge the appropriate fee as required under 37 CFR §1.17(p) to our Deposit Order Account No. 12-0080.

Respectfully submitted, LAHIVE & COCKFIELD, LLP

Giulio A. Deconti, Jr., Esc Registration No. 31,503

Agent for Applicants

28 State Street Boston, MA 02109 (617) 227-7400

Date: April 15, 2005

GAD/EAH/CEH/les

Enclosures



PTO/SB/08a/b (08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

1

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

Complete if Known			
Application Number	10/031,841		
Filing Date	January 22, 2002		
First Named Inventor	Douglas C. Fraser		
Art Unit	Not Yet Assigned		
Examiner Name	Not Yet Assigned		
Attorney Docket Number	KNI-004CPUS		

	U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	A1	6,608,025 B1	08-19-2003	Fraser, et al.		

2

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	۳°

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A2	CHRISTIE et al., "Identification of kex2-related proteases in chromaffin granules by partial amino acid sequence analysis," <i>J Biol Chem.</i> , 1991 Aug 25;266(24):15679-83.	
	A3	EGGER et al. "Different degrees of processing of secretogranin II in large dense core vesicles of bovine adrenal medulla and sympathetic axons correlate with their content of soluble PC1 and PC2," Neurosci Lett., 1993 Sep 3;159(1-2):199-201.	
	A4	FULLER et al. "Intracellular targeting and structural conservation of a prohormone-processing endoprotease," Science, 1989 Oct 27;246(4929):482-6.	
	A5	HAMBLIN, et al. "Primary structure and functional characterization of a human 5-HT _{1D} -type serotonin receptor," <i>Mol Pharmacol.</i> , 1991 Aug;40(2):143-8.	
	A6	HAYWARD et al. "Bidirectional imprinting of a single gene: GNAS1 encodes maternally, paternally, and biallelically derived proteins," <i>Proc Natl Acad Sci U S A.</i> , 1998 Dec 22;95(26):15475-80.	
	A7	ISCHIA <i>et al.</i> Molecular cloning and characterization of NESP55, a novel chromogranin-like precursor of a peptide with 5-HT _{1B} receptor antagonist activity. J Biol Chem. 1997 Apr 25;272(17):11657-62.	
	A8	JIN et al. "Characterization of the human 5-hydroxytryptamine _{1B} receptor," <i>J Biol Chem.</i> , 1992 Mar 25;267(9):5735-8.	
	A9	KIRCHMAIR <i>et al.</i> "Differential subcellular distribution of PC1, PC2 and furin in bovine adrenal medulla and secretion of PC1 and PC2 from this tissue," <i>Neurosci Lett.</i> , 1992 Aug 31;143(1-2):143-5.	
	A10	LEVY et al. "Molecular cloning of a human serotonin receptor (S12) with a pharmacological profile resembling that of the 5-HT _{1D} subtype," <i>J Biol Chem.</i> , 1992 Apr 15;267(11):7553-62.	

Examiner	Date	
Signature	Considered	

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE spond to a collection of information unless it contains a valid OMB control number. Under the Paperwork Reduction Act of 1995, no persons are

Substitute for form 1449A/B/PTO

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

2 2 of

	Complete if Known
Application Number	10/031,841
Filing Date	January 22, 2002
First Named Inventor	Douglas C. Fraser
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	KNI-004CPUS

_	NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²	
	B1	LOVISETTI-SCAMIHORN <i>et al.</i> "Pig splenic nerve: peptides derived from chromogranins by proteolytic processing during axonal transport," <i>Regul Pept.</i> , 1999 Jan 1;79(1):63-7.		
	B2	LOVISETTI-SCAMIHORN et al. "Relative amounts and molecular forms of NESP55 in various bovine tissues," Brain Res., 1999 May 22;829(1-2):99-106.		
	В3	SIGAFOOS et al. "Novel peptides from adrenomedullary chromaffin vesicles," J Anat., 1993 Oct;183 (Pt 2):253-64.		
	B4	WISE et al. "Expression of a human proprotein processing enzyme: correct cleavage of the von Willebrand factor precursor at a paired basic amino acid site," <i>Proc Natl Acad Sci U S A.</i> , 1990 Dec;87(23):9378-82.		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	D	Date	· · · · · · · · · · · · · · · · · · ·	
Signature		Considered		

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.